

Case 3263

***Octopus hummelincki* Adam, 1936 (Mollusca, Cephalopoda): proposed conservation of the specific name**

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Abstract. The purpose of this application, in relation to Article 23.9.3 of the Code, is the conservation of the name *Octopus hummelincki* Adam, 1936 for a common small ocellate octopus from the Caribbean and western Atlantic. The older name *O. filosus* Howell, 1868 was long regarded as a synonym of *O. vulgaris* Cuvier, 1797, but more recently has been synonymized with *O. hummelincki* (rather than *O. vulgaris*). The name *O. filosus* has had very little usage and as its synonymy is in some doubt, its suppression is proposed to conserve the general and long usage of *O. hummelincki*.

Keywords. Nomenclature; taxonomy; Cephalopoda; OCTOPODIDAE; *Octopus hummelincki*; *Octopus filosus*.

1. The name *Octopus filosus* Howell, 1868 (p. 240, pl. 14; originally spelled *O. filosa*) was proposed for a small octopus from 'along the coast of Santa Cruz Island', and was chosen for the 'remarkable long and thread-like terminations to the arms'. Howell gave detailed measurements of the body and arms of the largest specimen he had seen, and he included a somewhat cryptic statement that the species 'changes the color of its spots with great rapidity'. This specimen is deposited in the Academy of Natural Sciences of Philadelphia: it is a female (Voss & Toll, 1998, p. 464: pers. obs.).

2. In his catalogue of recent Cephalopoda, Hoyle (1886) listed under each of all the then-known species an abbreviated bibliographic reference and a locality, categorized according to one of 17 regions. For *Octopus filosus* the locality given on p. 220 (with no further explanation) was 'West Indian Region'. Hoyle's interpretation of the locality was perhaps influenced by the fact that, in the same paper as the description of *O. filosus*, Howell (1868) had described a new species of squid, *Loligo hemiptera*, from 'the Gulf of Mexico and along the Florida coast'. Subsequent authors have followed Hoyle and, with some doubts, have assumed the locality of *O. filosus* to be in the eastern Caribbean. Robson (1929, p. 146) repeated Howell's original description, apparently without inspecting the type specimen, and listed *O. filosus* as an 'unclassified form' that was only known from Howell's work. He noted 'there are several 'Santa Cruz' islands, mostly in the Pacific. I suspect, however, that the West Indian Island of that name [St. Croix in the Virgin Islands] is meant'.

3. Adam (1936, p. 2) described a male and two females in the Zoological Museum of Amsterdam as the syntypes of a new nominal species, *Octopus hummelincki*, characterized in particular by a pair of ocelli 'situés entre les yeux et le bord de la membrane interbranchiale, plus proches des yeux que du bord de la membrane'. Detailed measurements were given of the male and one of the females, which

had been collected in shallow water (1.0–1.5 m) among coral at Bonaire in the Caribbean Lesser Antilles. The species was named after the collector, P. Wagenaar Hummelinck. The description of these specimens was expanded the following year (Adam, 1937, p. 25).

4. In a review of the octopus species of the Western Atlantic, Pickford (1945, pp. 709, 714, 728, 729) stated that Howell's *O. filusus* was a junior synonym of *O. vulgaris* Cuvier, 1797. In the same paper *O. hummelincki* was described (p. 747) as 'the only ocellate species of octopod known from the Atlantic'; it is a common littoral species throughout the Caribbean (Rees, 1950, p. 108). Pickford (1946, p. 422) again synonymized *O. filusus* and *O. vulgaris*; her revised key to the littoral Octopoda of the western Atlantic included (pp. 413–414) both *O. vulgaris* and *O. hummelincki*, with no mention of *O. filusus*.

5. Voss (1962, p. 3) examined Howell's original specimen of *O. filusus* (see para. 1 above), and concluded that it was conspecific with *O. hummelincki* and not with *O. vulgaris*. He stated that 'the use by Pickford of this name [*filusus*] in her 1945 paper and by Robson in 1929 prevents the invocation of the 50-year rule, and *hummelincki* must now be placed in the synonymy of *filusus* Howell'. In this remark Voss was mistaken: the rule in question (Article 23b of the 1961 Code) stated that a name which had not been used as a senior synonym (i.e. had not been used, rather than a younger synonym, as the valid name of a taxon) within the past 50 years must not be reintroduced. Only Robson had used *filusus* as the valid name for a recognized taxonomic species (see above) so, in accordance with the provision, Voss should have rejected *O. filusus* as a nomen oblitum. In later papers, Voss did indeed retain the use of *O. hummelincki* (see Voss & Solis Ramirez, 1966, p. 622; Voss, 1968, p. 656; Voss, 1971, p. 5). Burgess (1966) listed *O. filusus* as a rejected senior synonym of *O. hummelincki* but did not explicitly invoke the Code rule.

6. Toll (1990, p. 26) drew attention to the paper of Voss (1962) identifying *O. filusus* and *O. hummelincki* as synonyms. He cited several references, including the papers mentioned above by Robson (1929), Pickford (1945, 1946) and Burgess (1966), as 'usages' of the name *O. filusus*, but of these only Voss (1962) had in fact claimed *filusus* to be the valid synonym of *hummelincki* and only he and Robson (1929) had used the name *filusus* for a taxon in describing Howell's holotype. Apart from Toll (in Voss & Toll, 1998, p. 464), only two other authors have since adopted the name *O. filusus* in place of *O. hummelincki* (presumably in deference to Toll, 1990), and then only as brief mentions in synoptic studies involving many other species: these are Voight (1991, p. 243; 1993a, p. 354; 1993b, p. 221; 1994, p. 493) and Norman (2000, p. 273). In none of these accounts is there any discussion or new information on the biology of the species in question. In contrast the name *O. hummelincki* has been and remains in very wide use, and the Commission Secretariat has been given a list of 20 representative references.

7. I have recently drawn attention (Gleadall, 2002, p. 78) to the erroneous nomenclatural interpretations of Toll (1990) and the case, on the grounds of usage, for the conservation of the name *O. hummelincki* by the Commission. There are two additional factors that have encouraged the present application: first, doubt concerning the type locality of *O. filusus* and, secondly, doubt that the name *O. filusus* was given to an ocellate species.

8. Doubt about the type locality is such that *O. filusus* could be either a Pacific or an Atlantic species. The opinions of Hoyle (1886) and Robson (1929) (see para. 2 above) on the type locality appear to have been accepted and the type locality changed to the West Indian 'St. Croix' rather than the original 'Santa Cruz'. Unfortunately, recent enquiries of the staff at the Academy of Natural Sciences of Philadelphia have produced no new information about the original locality of *O. filusus*. There is an ocellate species of octopus in the eastern Pacific, *Octopus oculifer* Hoyle, 1904 (p. 14), which is a morphologically very similar (geminant) species to the Atlantic *O. hummelincki* (see Voight, 1988). If the type locality of *O. filusus* should later be shown to have been, in fact, one of the Santa Cruz islands of the eastern Pacific (e.g. off the coast of California), then *O. filusus* is likely to be a synonym of *O. oculifer* rather than of *O. hummelincki*. In this event the usage of the name *O. oculifer* for the Pacific taxon should be maintained in accordance with the Code.

9. The holotype of *O. filusus* and two of the syntypes of *O. hummelincki* have been obtained on loan and re-examined. The syntypes are in excellent condition and there are no doubts about anything concerning the description of *O. hummelincki*. Unfortunately, the same cannot be said for *O. filusus*. The condition of the holotype is very poor: it is devoid of skin over most of its surface. The identification of *O. filusus* as a synonym of *O. hummelincki* rests largely on the presence or absence of a pair of ocelli on the skin of the arm bases. My recent inspection reveals that there is nothing resembling an ocellus on the right side, and on the left there is merely a vague blemish, visible only with the aid of a microscope. This blemish could either be the remains of an ocellus or an artifact of damage to the deteriorating skin. If this specimen had no ocelli then *O. filusus* is not synonymous with *O. hummelincki*.

10. The name *O. filusus* Howell, 1868 is essentially unused and its identity has been, and remains, in doubt, whereas its synonym *O. hummelincki* Adam, 1936 has been in wide use for nearly 70 years. It is unlikely that the name *O. filusus* refers to an otherwise undiscovered taxon and I recommend that it should be suppressed.

11. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the name *filusus* Howell, 1868, as published in the binomen *Octopus filusus*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official List of Specific Names in Zoology the name *hummelincki* Adam, 1936, as published in the binomen *Octopus hummelincki*;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *filusus* Howell, 1868, as published in the binomen *Octopus filusus* and as suppressed in (1) above.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).